MEMORANDUM FOR RECORD

INDUSTRIAL STORM WATER SITE VISIT

AT
SHINE BROTHERS CORPORATION/STORY BOOK PARK
SPENCER, IA

BY
U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION VII

WATER, WETLANDS & PESTICIDES DIVISION

ON
November 20, 2013

PARTICIPANTS

U.S. Environmental Protection Agency (EPA):
Lantz Tipton, Environmental Scientist
Patricia Miller, Assistant Regional Counsel

Iowa Department of Natural Resources (IDNR):
Tom Roos, Environmental Specialist
Amber Wolf, Environmental Specialist

City of Spencer, Public Works Department (City):
Mark White, Director of Public Works
Craig Poulsen, Assistant Director of Public Works
Delray Bredehoeft, Director of the Parks and Recreation Department.

OBSERVATIONS

November 20, 2013, I conducted a site visit of Story Book Park in Spencer, IA. The purpose of the site visit was to gather information regarding the connection of Pete's Pond to the City storm sewer, ensure EPA contained all information from IDNR's files, observe the northern perimeter of the SBC property, and to observe the current condition of Story Book Park, Pete's Pond, and the Little Sioux River. The site visit began with a review of the Shine Brothers Corporation records in the IDNR Field Office #3 in Spencer. Information not included in the EPA April 10, 2012 inspection report was obtained and digital photographs were requested from IDNR.

Following the review of IDNR's files, a meeting was conducted with City personnel at City Hall. The primary purpose for meeting with city staff was to obtain information and clarification of the outlet from Pete's Pond to the storm sewer along 10th Avenue South East. Mr. Poulsen provided an engineering drawing of the storm sewer connection with elevations noted on the drawing. Mr.

Poulsen explained that storm water from the 10th Ave. SE normally flows into Pete's Pond, but when the pond reaches a certain level it will flow into the storm sewer through the outlet and past an Automatic Drainage Gate or "flap valve". I asked Mr. Poulson if the depth that the pond would overflow was known and he explained that it was not known, but City staff could find out by surveying the elevation and send EPA the information.

Mr. Bredehoeft arrived at the meeting to discuss the past and current conditions of the park. He explained that many of his workers are seasonal help and that they were not available. He explained that the trees in the park were planted by the City, that the bike and walking trails are heavily used, and that children regularly fish in Pete's Pond. He was asked if water remained in Pete's Pond year round and he explained that water is there year round

Following the meeting with City staff, the group, minus Mr. Bredehoeft, proceeded to Story Book Park. Upon arriving at the park, an observation was made of Pete's Pond. At the time of the site visit, no storm water was flowing into the pond and the pond was not discharging from its outlet to the storm sewer along 10th Ave. SE. Photographs were taken of Pete's Pond.

The area west of Pete's Pond and north of the Shine Brothers Corporation perimeter was observed. In this area 4 outfalls were identified where storm water leaves the SBC property and flows towards Pete's Pond. Three outfalls (western 3) leave SBC property and join in a swale that flows towards east to Pete's Pond. At the time of the site visit no storm water was discharging off of SBC property and the swale was predominantly dry. In the bottom of the swale, granular material, previously referred to as chopped up wire insulation or "fluff" was observed. The granular material was approximately half the size of a dime, appeared brown/black in color, and was spread throughout the swale. Mixed in the granular material was copper wire insulation in various colors of blue, white, green, and red. At first appearance the fluff appears to be soil, but when walking across the swale the ground had a spongy feel. I attempted to dig down with my foot to determine the point where the fluff ended and the ground surface began, but the fluff was considerably deep and the depth was unknown. The fluff was consistently spread throughout the area near the SBC perimeter fence, but was deepest in the swale. Photographs were taken of the area.

It was noted that newly added storm water controls, consisting of silt fence and straw bales, had been recently been installed along the perimeter of the chain length fence. Photographs were taken of the newly added storm water controls.

The inspection continued with a closer observation of Pete's Pond. I observed the southern edge of Pete's Pond and observed fluff deposited at what was presumed to be the high water mark of the pond and along the pond bank. I observed the pond outlet near the southeast corner of Pete's Pond and observed fluff deposited on top of the outlet pipe and on both sides of the pipe.

The inspection continued with an observation of point where Pete's Pond outlet connects with the storm sewer at 10th Ave SE Mr. Poulson and Mr. White removed the manhole cover located near Latitude 43.136286 and Longitude -95.131023. When the manhole cover was removed material similar to the fluff, which was observed on the ground in Story Book Park, in Pete's Pond, and the material at the pond outlet, was observed in the manhole. The flap valve was

observed and Mr. Roos noted that the valve was stuck in the open position due to debris. Mr. Poulson stated that City staff would come back in the afternoon and unclog the line. Mr. Roos requested that he be notified prior to the City staff unclogging the line and that he be at the site when the work commenced. Mr. Poulson agreed and said that he would notify Mr. Roos.

The inspection then moved to the point where the storm sewer followed 10th Ave. SE south to the Little Sioux River. I walked down to the storm sewer outlet pipe and observed the sand river bank. I noticed colors of green, blue, and white wire insulation similar to material observed in the park and took photographs.

I also observed East Park Street and the street surface that collected storm water runoff from the northern portion of the SBC property. No discharge was noted at this location; however it was noted that plastic bottle recycling takes place in this area (photographs were taken of the area). I also observed the Little Sioux River at the point where the storm sewer from 4th Avenue East discharges to the river. I did not observe any impacts to the river that appeared to have originated from the SBC facility. Photographs were taken of the area.

An exit interview was then conducted with Mr. Poulson and Mr. White. Mr. Poulson explained that he would send me the elevations of the outlet from Pete's Pond.

Following the exit interview with the City staff, myself, Ms. Miller, and the IDNR staff traveled to East Leach Park on the south side of the Little Sioux River. At this location the southern perimeter of the SBC property was observed along with the Little Sioux River to determine if scrap metal had been allowed to fall off or be launched into the river channel. The river channel was free of scrap metal and Mr. Roos noted that the piles of scrap metal were significantly smaller than what was previously there in 2011 and earlier in 2013.

Following the view the Little Sioux River, myself and Ms. Miller concluded the site visit.

On November 21, 2013, Mr. Roos contacted me and informed me that he had been present when the City of Spencer Public Works Staff began working on unclogging the line from Pete's Pond to the 10th Avenue South East storm sewer. Mr. Roos explained that a sample of the material was collected and observed. He explained that the material was the same material noted in the flow path from the SBC facility to Pete's Pond. He also explained that there were actual pieces of metal wire mixed in the debris that measured up to 2 inches in length. Mr. Roos provided me with photographs that he had taken and they are included in this memorandum as Attachment #4.

A sample of the debris found in the stormsewer was collected by Mr. Roos and analyzed for metal concentrations. On November 20, 2013, Mr. Roos forwarded the results to me via electronic mail. Attachment #5 are the results of the sample analysis, determined by the University of Iowa's State Hygienic Laboratory.

Lantz Tipton
Environmental Scientist
December 20, 2013

Attachments:

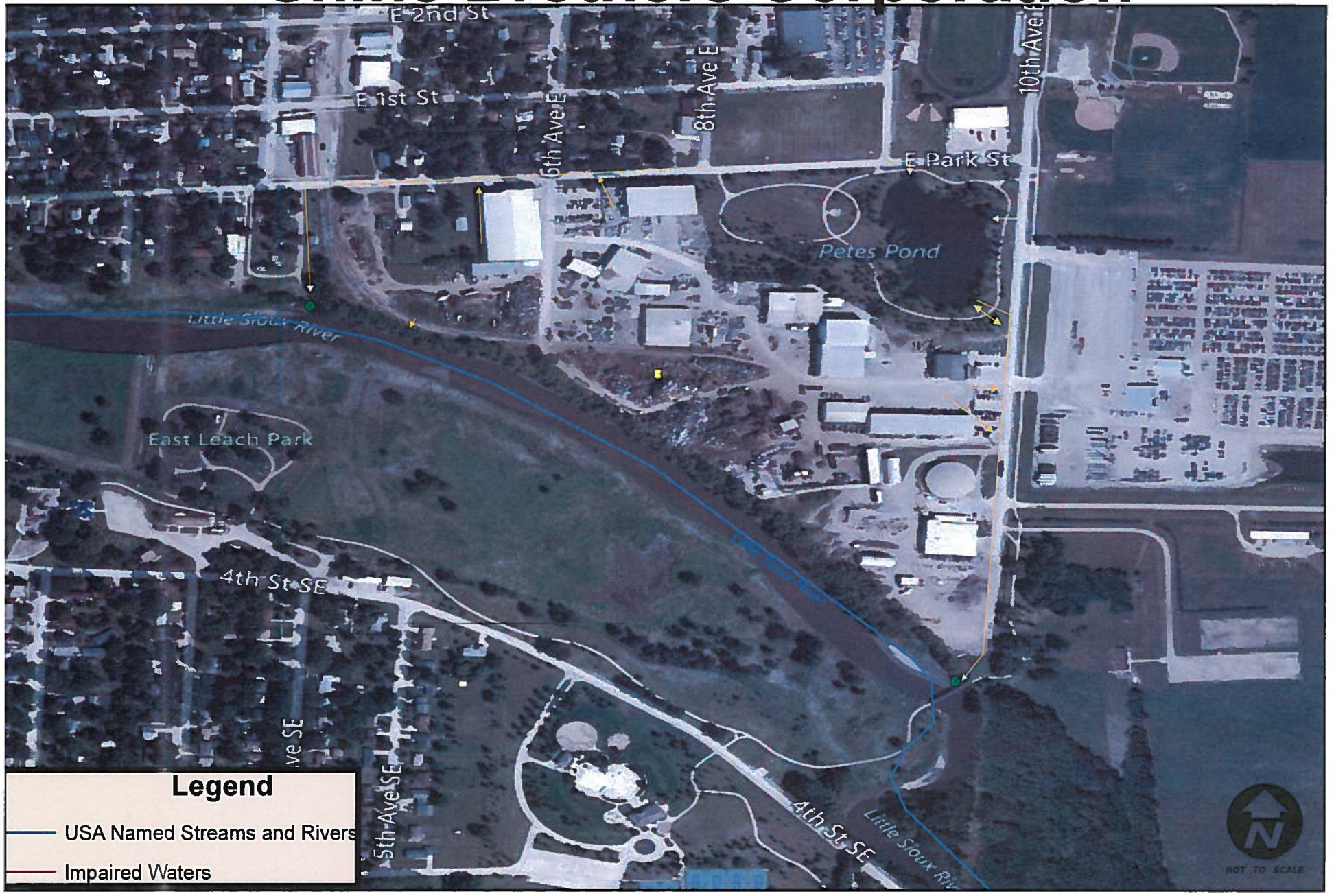
1. Aerial Photographs/Location Maps
2. Photo Log and Photographs
3. City of Spencer Stormsewer Maps
4. IDNR 11/20/13 photographs
5. University of Iowa State Hygienic Laboratory sample analysis

ATTACHMENT 1

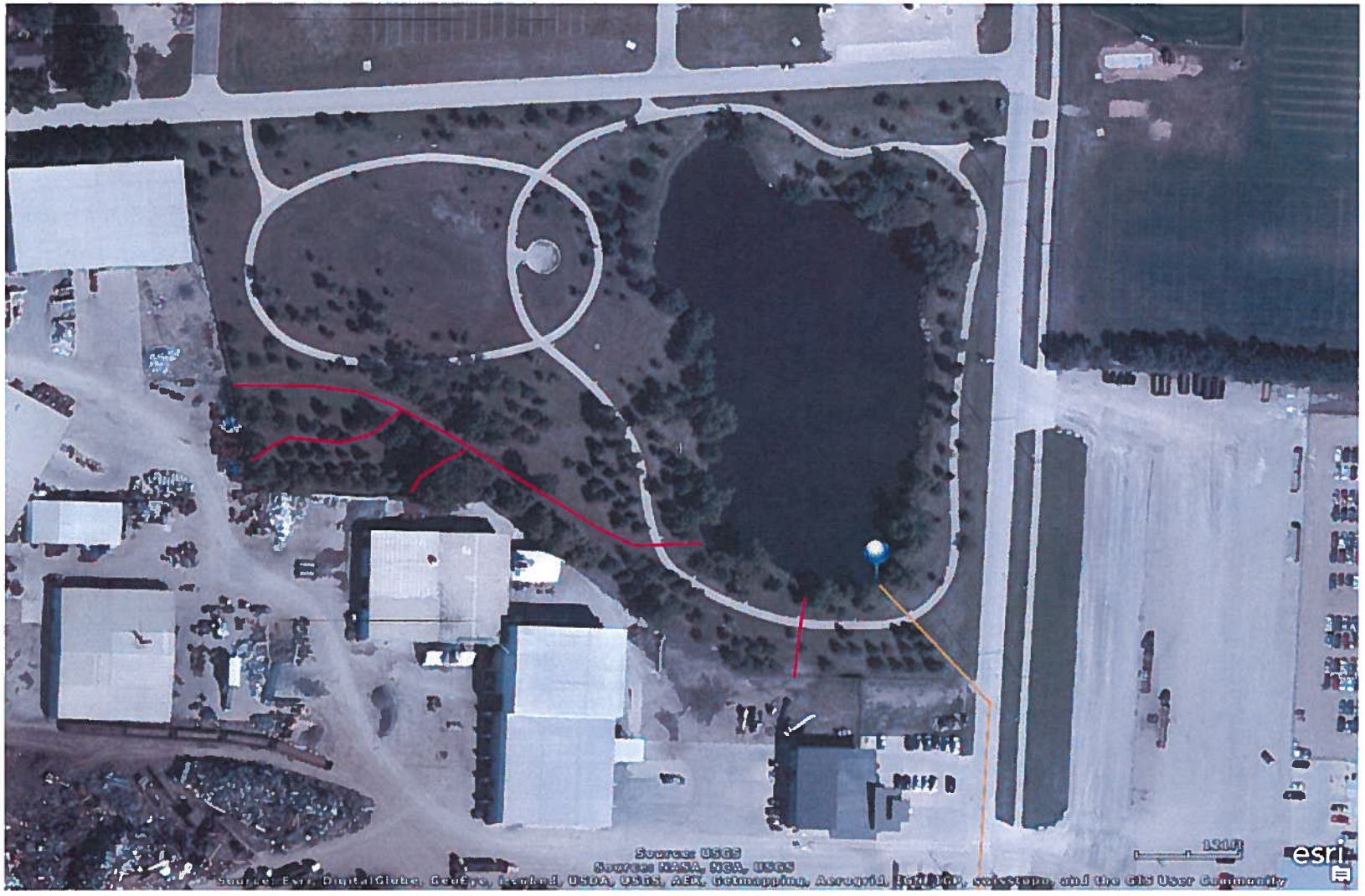
AERIAL IMAGERY/LOCATION MAPS

City of Spencer - SBC Location

Shine Brothers Corporation



SBC Outfalls to Pete's Pond



ATTACHMENT 2

November 20, 2013 Photo Log and Photographs

CHAIN OF CUSTODY DOCUMENT

SHINE BROTHERS CORPORATION, SPENCER, IA
NOVEMBER 20, 2013

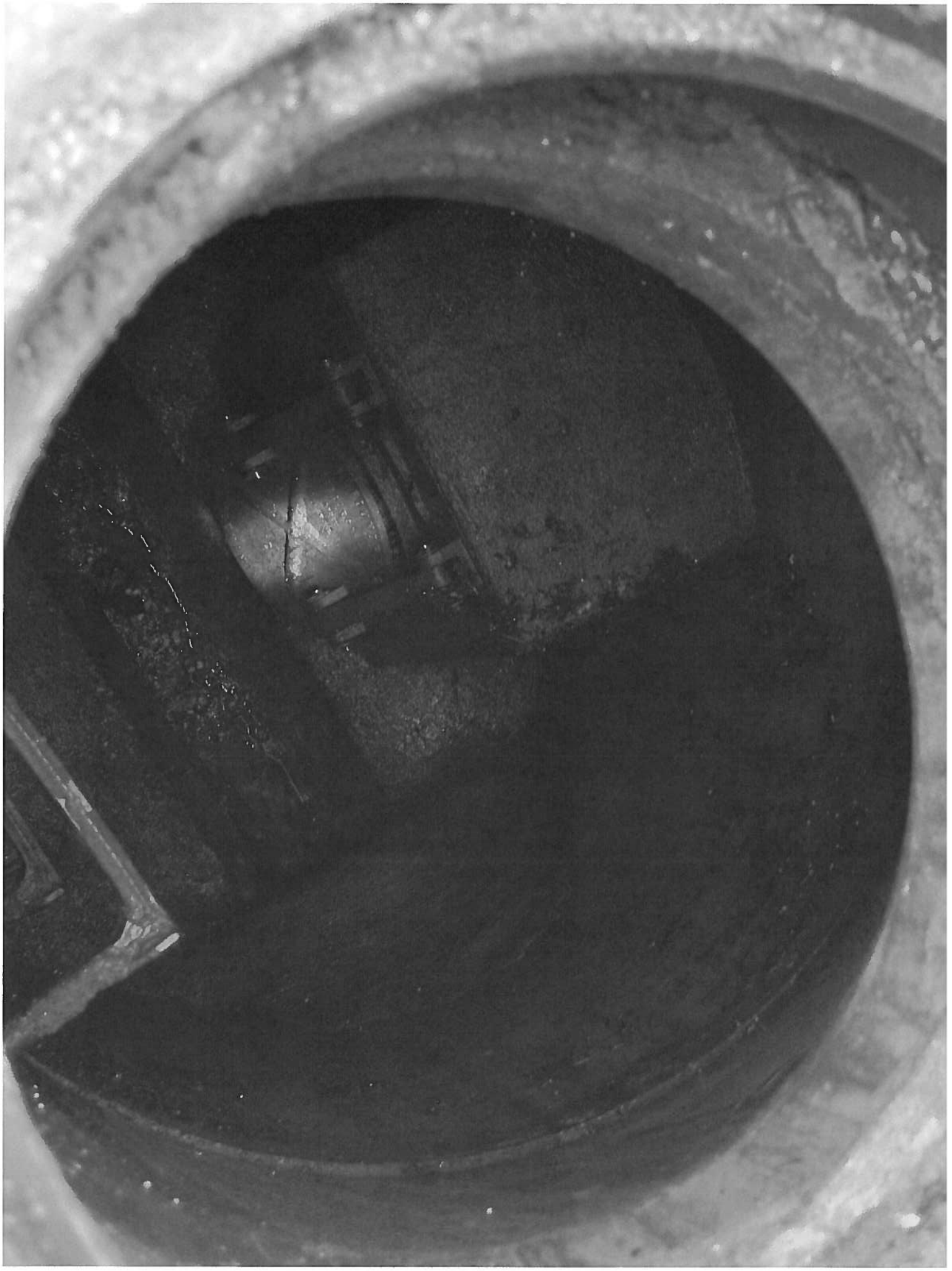
Facility Name / City: Shine Brothers Corporation/Spencer, IA
Facility ID# N/A
Date: November 20, 2013
Approximate Time Taken (Military Time): Between 1000 - 1200 hours
Photographer / Videographer: All photos were taken by Lantz Tipton.
Type of Camera: Nikon D5000 N16184 **Serial #:** 3328543
Digital Recording Media: Flashcard
All digital photos & video were copied by: Lantz Tipton on November 21, 2013
All digital photos & video were copied to: CD-R
Original copy is stored in: CD-R. Digital photos were downloaded to CD-R all by Lantz Tipton.

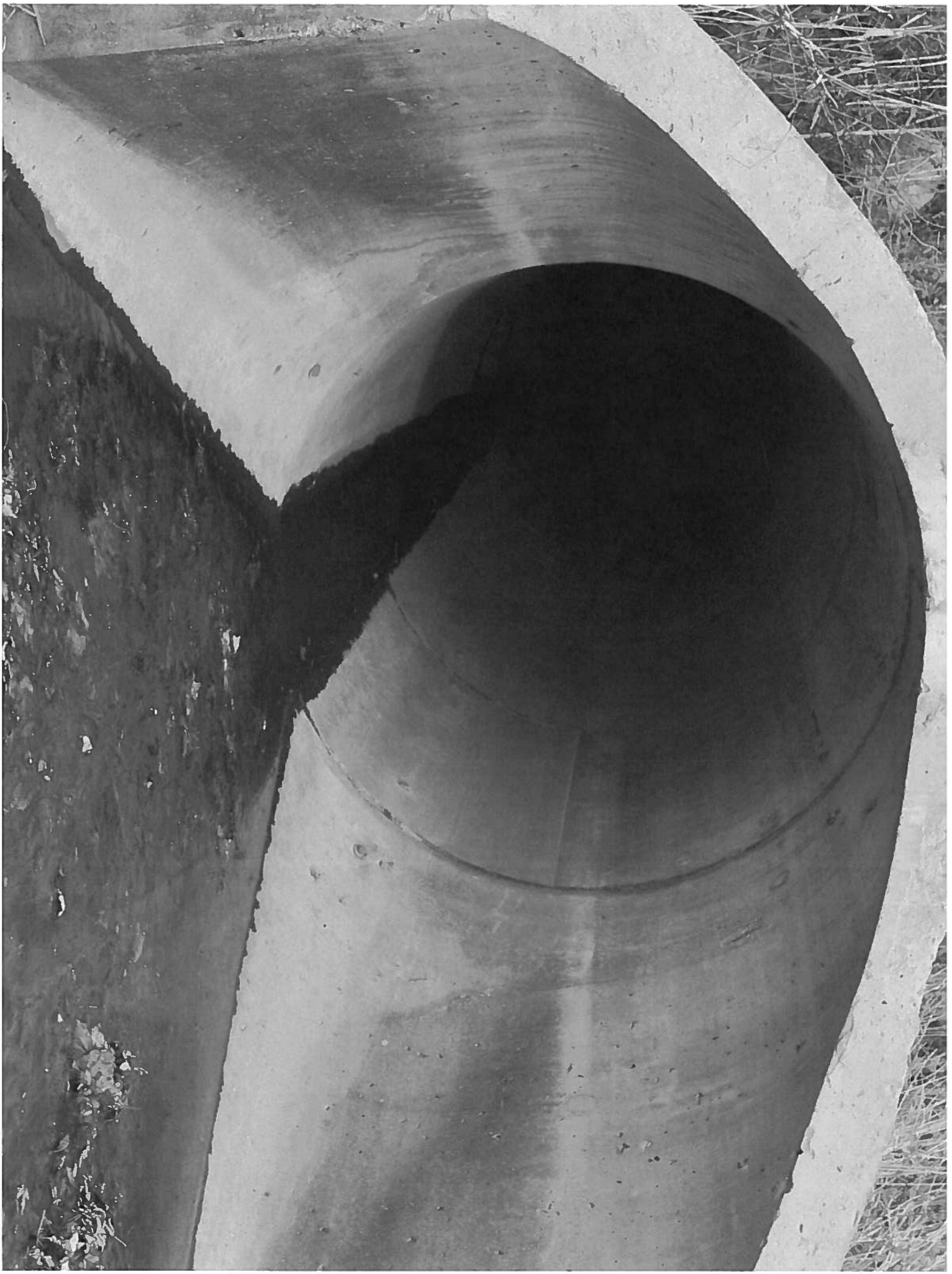
Report Photo #	Taken by:	Date	Approximate Time (mil)	File Name (.jpg)	Description
1	L. Tipton	11/20/13	1013	DSCN0507.JPG	Photo of the flow path from SBC south to Pete's Pond. Looking south towards SBC facility. The flow path contained small pieces of wire insulation and rubber that had accumulated and distributed across the flow path.
2	L. Tipton	11/20/13	1013	DSCN0508.JPG	Taken from same location as photo #1. Looking down at the granular pieces of wire insulation and rubber that had accumulated on the ground of the park.
3	L. Tipton	11/20/13	1013	DSCN0509.JPG	Taken from same location as photo #1 and #2, but facing southeast. Photo of more wire insulation/rubber accumulated on the ground of the park.
4	L. Tipton	11/20/13	1013	DSCN0510.JPG	Taken approximately 15' south of photos #1-#3. Looking down at the ground at the accumulated debris that the surface has been disturbed.
5	L. Tipton	11/20/13	1014	DSCN0511.JPG	Photo of a pile of debris accumulated along the right descending bank of the flow path.
6	L. Tipton	11/20/13	1014	DSCN0512.JPG	Close up view of the pile of debris. Note the red, blue, and green, colors of the wire insulation in the debris.
7	L. Tipton	11/20/13	1015	DSCN0513.JPG	Photograph taken along the northern SBC property line. Looking at recently installed storm water controls along the fence line and the unvegetated ground inside the park.
8	L. Tipton	11/20/13	1015	DSCN0514.JPG	Taken from same location as photo#7 looking onto SBC property at stockpiled materials
9	L. Tipton	11/20/13	1017	DSCN0515.JPG	Photo of the flow path from SBC at the swale in Story Book Park leading to Pete's Pond. The area in the foreground of the photo is deposited fluff or granular material from the SBC property.

Report Photo #	Taken by:	Date	Approximate Time (mil)	File Name (.jpg)	Description
10	L. Tipton	11/20/13	1018	DSCN0516.JPG	Taken from same location as Photo #9. Looking down at the deposited material. A small hole was dug and the pen is used for scale to show the depth of the material.
11	L. Tipton	11/20/13	1018	DSCN0517.JPG	Photograph of an outfall location from SBC with a flow path to Story Book Park.
12	L. Tipton	11/20/13	1019	DSCN0518.JPG	Photograph of new storm water controls installed along the SBC perimeter fence.
13	L. Tipton	11/20/13	1019	DSCN0519.JPG	Photograph of the SBC perimeter. Looking west onto SBC property along the north central perimeter of the property.
14	L. Tipton	11/20/13	1019	DSCN0520.JPG	Taken from same location as Photo #13. Close up view of the storm water control.
15	L. Tipton	11/20/13	1020	DSCN0521.JPG	Photograph of another outfall location from SBC. Observing the storm water control on the south side of the fence with deposited fluff on the north side of the fence.
16	L. Tipton	11/20/13	1021	DSCN0522.JPG	Photograph of concrete blocks along the SBC perimeter located near the north central portion of the property.
17	L. Tipton	11/20/13	1021	DSCN0523.JPG	Taken approximately 15' north west of photograph #16. Looking at fluff mixed with pine needles. Colored wired insulation also mixed into the deposited material.
18	L. Tipton	11/20/13	1022	DSCN0524.JPG	Photograph of the northern most outfall from SBC to Story Book Park. Area devoid of vegetation in the park. Storm water controls along the perimeter of the property fence.
19	L. Tipton	11/20/13	1022	DSCN0525.JPG	Close up view of the outfall and storm water controls recently installed.
20	L. Tipton	11/20/13	1023	DSCN0526.JPG	Taken from the same location as photograph #19. Sediment laden water below the outfall.
21	L. Tipton	11/20/13	1023	DSCN0527.JPG	Taken approximately 10 feet east of photograph #20. Looking east at the swale through Story Book Park and d the flow path toward Pete's Pond.
22	L. Tipton	11/20/13	1028	DSCN0528.JPG	Photo of the upstream end of the culvert leading to Pete's Pond approximately 65 feet west of the pond. Fluff noted around the culvert opening and on top of the culvert.
23	L. Tipton	11/20/13	1028	DSCN0529.JPG	Photograph of the downstream end of the culvert leading to Pete's Pond approximately 55 feet west of Pete's Pond. Fluff noted around the culvert and leading into the pond.

Report Photo #	Taken by:	Date	Approximate Time (mil)	File Name (.jpg)	Description
24	L. Tipton	11/20/13	1031	DSCN0530.JPG	Photograph of the manhole connecting the outlet of Pete's Pond to the storm sewer under 10th Ave. SE. Looking down at the Automatic Drainage Gate or flap valve that drains from Pete's Pond into the storm sewer. Flap valve is open and debris noticed in the top portion of the opening.
25	L. Tipton	11/20/13	1031	DSCN0531.JPG	Same as photograph #24.
26	L. Tipton	11/20/13	1032	DSCN0532.JPG	Same as photograph #24.
27	L. Tipton	11/20/13	1033	DSCN0533.JPG	Taken from same location as Photo #24-27. Looking down at material on the side of the manhole that appeared to be similar to the fluff material observed in the park.
28	L. Tipton	11/20/13	1038	DSCN0534.JPG	Photograph of the Little Sioux River. Taken from the point where the storm sewer from 10th Ave. SE discharges to the river. Looking south at the river channel.
29	L. Tipton	11/20/13	1039	DSCN0535.JPG	Taken from the same location as photograph #28, looking northeast at the storm sewer outlet pipe.
30	L. Tipton	11/20/13	1039	DSCN0536.JPG	Taken from same location as Photo #29, looking northwest at the upstream portion of the Little Sioux River.
31	L. Tipton	11/20/13	1040	DSCN0537.JPG	Taken from the same location as photograph #30. Close up of the river bank below the storm sewer discharge pipe
32	L. Tipton	11/20/13	1040	DSCN0538.JPG	Photograph of the flow channel from the storm sewer outlet pipe to the Little Sioux River. Pieces of colored wire insulation noted on the river bank.
33	L. Tipton	11/20/13	1041	DSCN0539.JPG	Photograph of the flow channel from the storm sewer outlet pipe to the Little Sioux River. Animal tracks noted in the channel.
34	L. Tipton	11/20/13	1050	DSCN0540.JPG	Photograph of the Little Sioux River taken from the 4th Avenue East storm sewer discharge point. Looking southeast at the river. The SBC property line is along the left descending bank of the river.
35	L. Tipton	11/20/13	1100	DSCN0541.JPG	Photo of 4th Ave East storm sewer discharge point to the Little Sioux River. Looking north.
36	L. Tipton	11/20/13	1101	DSCN0542.JPG	Photo of 4th Ave East storm sewer discharge point to the Little Sioux River. Looking north at the storm water flowing from the outlet.
37	L. Tipton	11/20/13	1102	DSCN0543.JPG	Photograph of the Little Sioux River looking southeast and downstream toward the SBC property along the left descending bank of the river.

Report Photo #	Taken by:	Date	Approximate Time (mil)	File Name (.jpg)	Description
38	L. Tipton	11/20/13	1111	DSCN0544.JPG	Photograph of the Pete's Pond outlet connected to the storm sewer of 10th Ave. SE. Facing northwest, looking down at the outlet. Fluff noted on the top of the outlet pipe and on the left side of the pipe.
39	L. Tipton	11/20/13	1111	DSCN0545.JPG	Same location as photograph#38. Close up view of the fluff and wire insulation on the top of the outlet pipe.
40	L. Tipton	11/20/13	1112	DSCN0546.JPG	Photograph of the outlet pipe, looking southwest at the right side of the pipe. Note the water marks on the pipe showing different high water levels. Fluff and wire insulation noted around the right side of the pipe.
41	L. Tipton	11/20/13	1114	DSCN0547.JPG	Taken approximately 30' west of the outlet pipe of Pete's Pond. Looking at the south bank of the pond. Fluff and wire insulation noted along the bank and water's edge.
42	L. Tipton	11/20/13	1129	DSCN0548.JPG	Flow path from SBC into Story Book Park and into Pete's Pond.
43	L. Tipton	11/20/13	1130	DSCN0549.JPG	Taken from same location as Photo #42. Looking south at the outfall from SBC.
44	L. Tipton	11/20/13	1146	DSCN0550.JPG	Taken approximately 10' west of Photo #43. Looking east at the southern edge of Pete's Pond and the outlet pipe.
45	L. Tipton	11/20/13	1147	DSCN0551.JPG	Photograph of Little Sioux River, from the east bank of the river in East Leach Park. Looking northwest upstream. SBC property is located along the right descending bank.
46	L. Tipton	11/20/13	1147	DSCN0552.JPG	Photograph of Little Sioux River, from the east bank of the river in East Leach Park. Looking northwest upstream. SBC property is located along the right descending bank.
47	L. Tipton	11/20/13	1147	DSCN0553.JPG	Photograph taken from East Park Street, near the northwest corner of Story Book Park. Looking at silt fence installed along the eastern perimeter of SBC.
48	L. Tipton	11/20/13	1148	DSCN0554.JPG	Photograph taken from East Park Street. Looking at baled metal, wire, and plastic.
49	L. Tipton	11/20/13	1148	DSCN0555.JPG	Same location as photo#48
50	L. Tipton	11/20/13	1148	DSCN0556.JPG	Same location photos #48-49
51	L. Tipton	11/20/13	1148	DSCN0557.JPG	Photograph taken from East Park Street, looking south at the western gate to the SBC facility along the railroad spur.

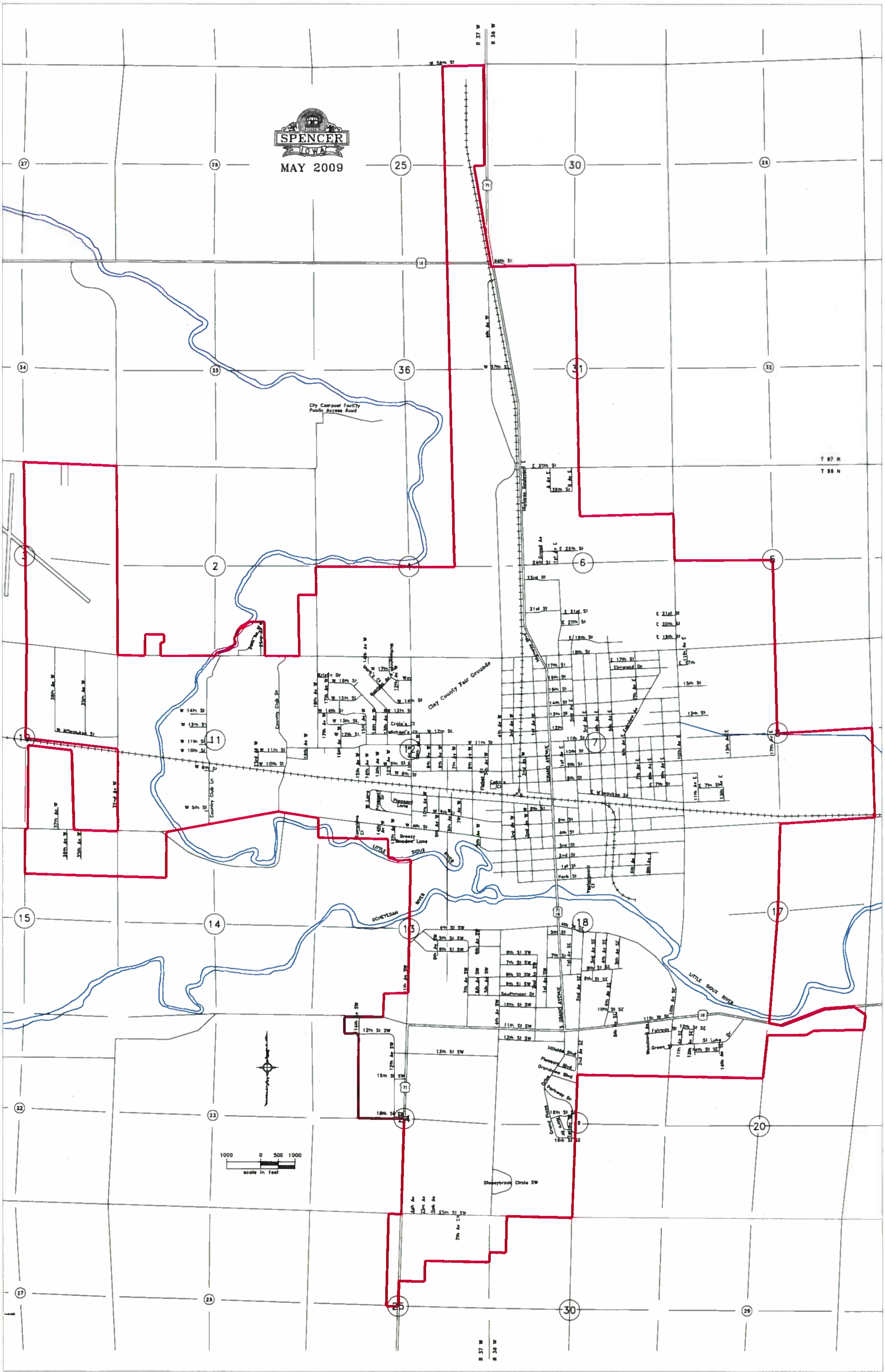




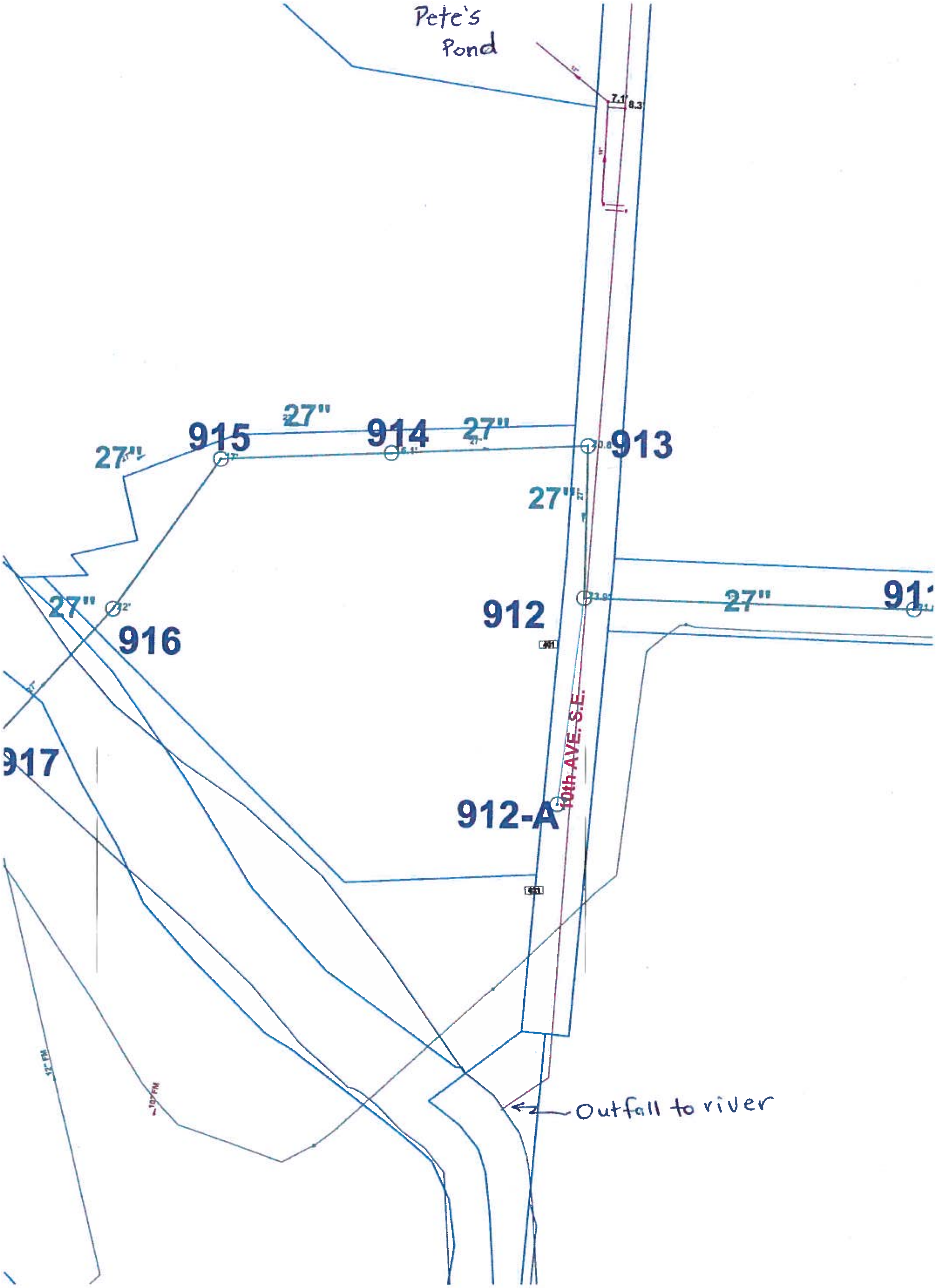
KOMATSU

ATTACHMENT 3

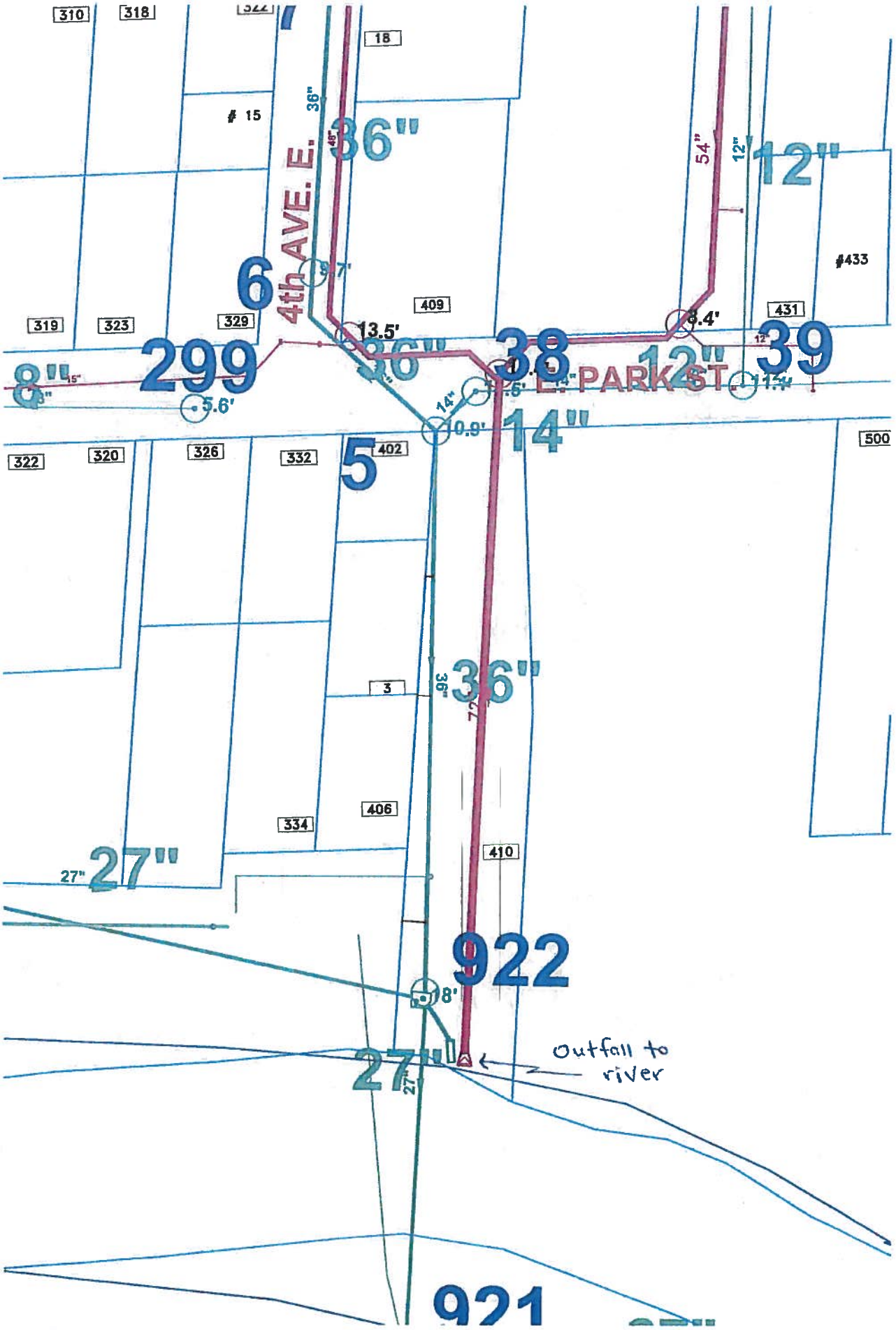
City of Spencer Storm Sewer Maps

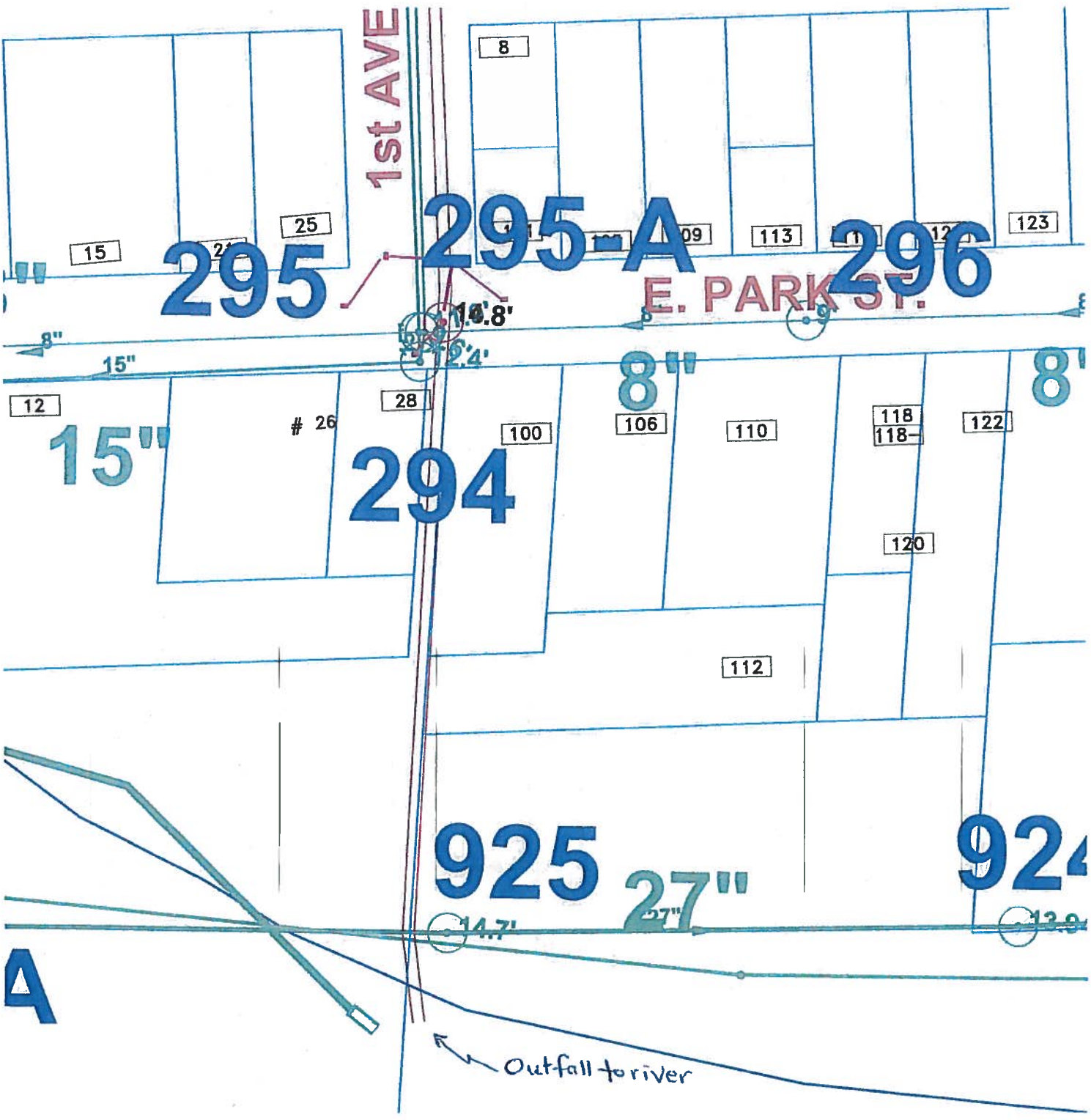


SPENCER
IOWA
MAY 2009
Clay County Fair Grounds
Little Sioux River
Ocheyedan River
Grand Avenue
Country Club Dr
scale in feet
1000 0 500 1000

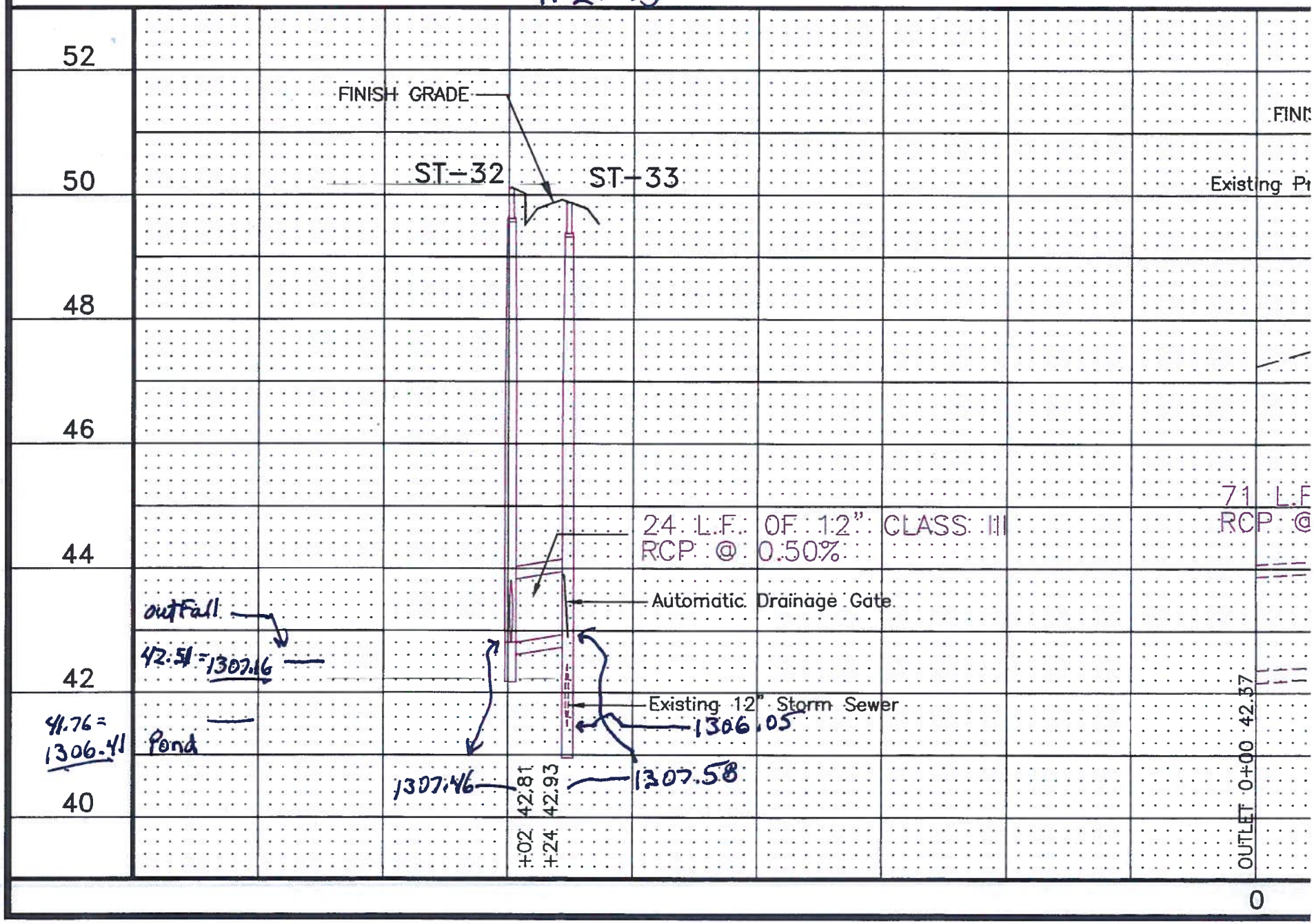


Pete's Pond
7.1'
8.3'
27"
915
914
27"
913
27"
27"
27"
912
27"
916
917
912-A
10th AVE. S.E.
12" FM
Outfall to river


310
318
18
15
36"
4th AVE. E.
36"
6
54"
12"
12"
#433
319
323
329
409
431
299
13.5'
38
39
8"
5.6'
E. PARK ST.
14"
14"
322
320
326
332
5
402
500
3
36"
406
334
410
27"
27"
922
8'
27"
Outfall to river
921


1st AVE
E. PARK ST.
295
295-A
296
294
925
924
15"
8"
27"
Outfall to river

11-20-13


52
50
48
46
44
42
40
FINISH GRADE
ST-32
ST-33
Existing Pi
24 L.F. OF 12" CLASS III RCP @ 0.50%
71 L.F
RCP @
Automatic Drainage Gate
outfall
42.51 = 1307.16
Existing 12" Storm Sewer
1306.05
41.76 = 1306.41
Pond
1307.46
42.81
42.93
1307.58
+02
+24
OUTLET 0+00 42.37
0

ATTACHMENT 4

IDNR Photographs taken on 11/20/13

IDNR PHOTOGPRAPH 11/20/2013 – CITY OF SPENCER STAFF WITH "JET TRUCK" PREPARING TO UNPLUG FLAP VALVE

IDNR PHOTOGRAPH 11/20/13 – PHOTOGRAPH OF STORM SEWER FLAP VALVE, LINE FROM PETE'S POND TO THE STORMSEWER. DEBRIS IN THE PIPE.

IDNR PHOTOGRAPH 11/20/2013 – PHOTOGRAPH OF CITY OF SPENCER STAFF EVALUATING THE DEBRIS REMOVED FROM THE STORMSEWER AT THE FLAP VALVE

ATTACHMENT 5

UNIVERSITY OF IOWA – STATE HYGIENIC LABORATORY RESULTS

State Hygienic Laboratory

The University of Iowa

Accession Number	137417
Date Sample Finalized	
Date Received	2013-11-21 11:59
Sample Source	Sediment
Project	04WQFS
Date Collected	2013-11-20 14:35
Collection Site	pete's pond outfall line
Collection Town	SPENCER
Sample Description	sediment
Client Reference	
Collector	roos tom
Phone	712/262-4177

IDNR-FO 3
GATEWAY NORTH MALL STE E17
1900 N GRAND AVE
SPENCER, IA 51301

Note: Upon arrival, sample met container and preservation requirements for the analysis requested. Please review carefully your sample results for additional analyte comments or method exceptions.

Pending Analyses

Metals, EPA 6010C

Results of Analyses

Cyanide, EPA 9014

Units	mg/kg [dry wt]	Analyzed In	Ankeny
Date Analyzed		Date Verified	2013-12-09 11:13
Analyst		Verifier	BRW

Note: Not analyzed.
Sample exceeded holding time in the laboratory.

Mercury, EPA 7471A

Units	mg/kg [dry wt]	Analyzed In	Ankeny
Date Analyzed	2013-12-02 09:16	Date Verified	2013-12-02 14:06
Analyst	SGB	Verifier	LAF
Analysis Prep	Mercury Digestion, EPA 7471A		

Analyte	Result	Quant Limit
Mercury	<1.0	1

Metals, EPA 6020

Units	mg/kg [dry wt]	Analyzed In	Ankeny
Date Analyzed	2013-12-12 18:11	Date Verified	2013-12-13 15:34
Analyst	SGB	Verifier	LAF
Analysis Prep	Metals Digestion of Solid Samples, EPA 3050B		

Analyte	Result	Quant Limit
Antimony	11	5
Arsenic	9.3	1
Cadmium	14	2
Chromium	77	2

Michael D. Wichman, Ph.D.
Associate Director
http://www.shl.uiowa.edu

University of Iowa Research Park
2490 Crosspark Road
Coralville, IA 52241
319/335-4500 Fax: 319/335-4555

Lakeside Laboratory
1838 Highway 86
Milford, IA 51351
712/337-3669 ext. 6 Fax: 712/337-0227

Iowa Laboratories Complex
2220 S. Ankeny Blvd
Ankeny, IA 50023
515/725-1600 Fax: 515/725-1642

Accession Number | 137417

Analyte	Result	Quant Limit
Copper	4200	5
Lead	730	1
Molybdenum	20	5
Nickel	66	5
Selenium	1.3	1
Silver	1.2	1
Thallium	<1.0	1
Zinc	6700	2

Description of Units used within this report

mg/kg [dry wt] = Milligrams per Kilogram by Dry Weight

The result(s) of this report relate only to the items analyzed. This report shall not be reproduced except in full without the written approval of the laboratory.

Iowa Environmental Laboratory IDs are: Ankeny #397, Iowa City/Coralville #027, Lakeside #393.

If you have any questions, please call Client Services at 800/421-IOWA (4692) or 319/335-4500. Thank you.

Michael D. Wichman, Ph.D.
Associate Director
http://www.shl.uiowa.edu

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Lakeside Laboratory
1838 Highway 86
Milford, IA 51351
712/337-3669 ext. 6 Fax: 712/337-0227

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2220 S. Ankeny Blvd
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515/725-1600 Fax: 515/725-1642